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         JAN 07
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                 Classification Data
NEWS 11
         FEB 02
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                 for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
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NEWS 13 FEB 06 Patent sequence location (PSL) data added to USGENE
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                 WTEXTILES reloaded and enhanced
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                 and 2009 MeSH terms
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                 TOXCENTER updates mirror those of MEDLINE - more
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                 formats
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                 EPFULL backfile enhanced with additional full-text
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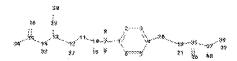
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chain nodes :

7 8 9 10 11 12 13 14 15 16 18 19 20 21 27 28 29 30 32 34 35

36 37 38 39 40

ring nodes :

1 2 3 4 5 6

chain bonds :

 $1-7 \quad 4-20 \quad 7-8 \quad 7-9 \quad 7-10 \quad 10-11 \quad 10-19 \quad 11-12 \quad 12-13 \quad 12-27 \quad 13-14 \quad 13-29 \quad 14-15$ 

14-32 15-16 15-34 18-20 18-21 18-35 27-28 29-30 35-36 35-37 37-38 37-40

38-39

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

 $1-7 \quad 7-8 \quad 7-9 \quad 7-10 \quad 10-11 \quad 10-19 \quad 12-27 \quad 13-14 \quad 13-29 \quad 14-15 \quad 14-32 \quad 15-16 \quad 15-34$ 

18-20 18-21 18-35 27-28 29-30 35-36 37-38 37-40

exact bonds :

4-20 11-12 12-13 35-37 38-39

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

G1:H,Ak

G2:O,Cb,Cy,Hy,Ak

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS

11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 18:CLASS 19:CLASS

20:CLASS 21:CLASS

27:CLASS 28:CLASS 29:CLASS 30:Atom 32:CLASS 34:CLASS 35:CLASS 36:CLASS

37:CLASS 38:CLASS

39:CLASS 40:CLASS

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14 ANSWERS

L2 14 SEA SSS FUL L1

L3 3 L2

=> d ibib abs hitstr 1-YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:460409 CAPLUS Full-text DOCUMENT NUMBER: 131:87805

TITLE: Preparation of amprenavir prodrugs as HIV protease

inhibitors

INVENTOR(S): Tung, Roger D.; Hale, Michael R.; Baker, Christopher

T.; Furfine, Eric Steven; Kaldor, Istvan; Kazmierski,

Wieslaw Wieczyslaw; Spaltenstein, Andrew

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. |              |      |     |     | KIND DATE |      |                      | APPLICATION NO.                 |                |    |      |     |      | DATE     |          |          |      |     |
|------------|--------------|------|-----|-----|-----------|------|----------------------|---------------------------------|----------------|----|------|-----|------|----------|----------|----------|------|-----|
| WO         | WO 9933815   |      |     |     |           |      |                      |                                 | WO 1998-US4595 |    |      |     |      |          |          | 19980309 |      |     |
|            | W:           | AL,  | AM, | ΑT, | ΑU,       | ΑZ,  | BA,                  | BB,                             | BG,            | BR | ξ,   | BY, | CA,  | CH,      | CN,      | CU,      | CZ,  | DE, |
|            |              |      |     |     |           |      | GE,                  |                                 |                |    |      |     |      |          |          |          |      |     |
|            |              | KP,  | KR, | KΖ, | LC,       | LK,  | LR,                  | LS,                             | LT,            | LU | J,   | LV, | MD,  | MG,      | MK,      | MN,      | MW,  | MX, |
|            |              | NO,  | NΖ, | PL, | PT,       | RO,  | RU,                  | SD,                             | SE,            | SG | 3,   | SI, | SK,  | SL,      | ΤJ,      | TM,      | TR,  | TT, |
|            |              |      |     |     |           |      | YU,                  |                                 |                |    |      |     |      |          |          |          |      |     |
|            | RW:          | GH,  | GM, | ΚE, | LS,       | MW,  | SD,                  | SZ,                             | UG,            | ZW | Ι, . | ΑT, | BE,  | CH,      | DE,      | DK,      | ES,  | FΙ, |
|            |              | FR,  | GB, | GR, | ΙE,       | IT,  | LU,                  | MC,                             | NL,            | PΤ | ,    | SE, | BF,  | ВJ,      | CF,      | CG,      | CI,  | CM, |
|            |              | GA,  | GN, | ML, | MR,       | ΝE,  | SN,                  | TD,                             | ΤG             |    |      |     |      |          |          |          |      |     |
| US         | 6436         | 989  |     |     | В1        |      | 2002                 | 0820                            |                | US | 19   | 97- | 9980 | 50       |          | 1        | 9971 | 224 |
| ΑU         | 9865         | 466  |     |     | Α         |      | 1999                 | 0719                            |                | AU | 19   | 98- | 6546 | 6        |          | 1        | 9980 | 309 |
| AU         | 7550         | 87   |     |     | В2        |      | 2002<br>2001<br>2001 | 1205                            |                |    |      |     |      |          |          |          |      |     |
| TR         | 2000         | 0261 | 5   |     | Т2        |      | 2001                 | 0122                            |                | TR | 20   | 00- | 2615 |          |          | 19980309 |      |     |
|            | 9814         |      |     |     | А         |      | 2001                 | 0925                            | BR 1998-14480  |    |      |     |      |          |          | 19980309 |      |     |
| EE         | E 200000385  |      |     | Α   |           | 2001 | 1217                 | EE 2000-385                     |                |    |      |     |      |          | 19980309 |          |      |     |
| EE         | 4466         |      |     |     | В1        |      | 2005                 | 0415                            |                |    |      |     |      |          |          |          |      |     |
| HU         | J 2001001831 |      |     | A2  |           | 2002 | 0429                 | HU 2001-1831                    |                |    |      |     |      |          | 19980309 |          |      |     |
| HU         | 2001         | 0018 | 31  |     | А3        |      | 2002                 | 0828                            |                |    |      |     |      |          |          |          |      |     |
| ΑP         | 1172         |      |     |     | Α         |      | 2003                 | 0630                            |                | AP | 20   | 00- | 1850 |          |          | 1        | 9980 | 309 |
|            | W:           | GH,  | GM, | KΕ, | LS,       | MW,  | SD,                  | SZ,                             |                |    |      |     |      |          |          |          |      |     |
| NZ         | 5057         | 76   |     |     | А         |      | 2003                 | 0630                            |                | NZ | 19   | 98- | 5057 | 76       |          | 1        | 9980 | 309 |
| IL         | 1369         | 41   |     |     | Α         |      | 2006                 | 0611                            |                | ΙL | 19   | 98- | 1369 | 41       |          | 1        | 9980 | 309 |
| CA         | 2231         |      |     |     | С         |      | 1999                 |                                 |                | CA | 19   | 98- | 2231 | 700      |          | 1        | 9980 | 310 |
| CA         | 2231         | 700  |     |     | A1        |      | 1999                 |                                 |                |    |      |     |      |          |          |          |      |     |
| JΡ         | 1120         |      |     |     |           |      | 1999                 | 0803                            |                | JΡ | 19   | 98- | 5870 | 5        |          | 1        | 9980 | 310 |
| JΡ         | 3736         | 964  |     |     | В2        |      | 2006                 |                                 |                |    |      |     |      |          |          |          |      |     |
| EΡ         | 9333         | 72   |     |     | A1        |      | 1999                 | 0804                            | EP 1998-104292 |    |      |     |      |          |          | 19980310 |      |     |
| EΡ         | 9333         | 72   |     |     | В1        |      | 2007                 | 1226                            |                |    |      |     |      |          |          |          |      |     |
|            | R:           |      |     |     |           |      | ES,                  |                                 |                | GR | ζ,   | ΙΤ, | LI,  | LU,      | NL,      | SE,      | MC,  | PT, |
|            |              |      | SI, | LT, |           | FΙ,  | RO,                  |                                 |                |    |      |     |      |          |          |          |      |     |
|            | 3820         |      |     |     | Τ         |      | 2008                 |                                 |                |    |      |     |      | 92       |          |          | 9980 |     |
|            | 2299         |      |     |     | Т3        |      | 2008                 | ES 1998-104292<br>EP 2007-24817 |                |    |      |     |      |          |          |          |      |     |
|            | 1944         |      |     |     |           |      | 2008                 |                                 |                | EΡ | 20   | 07- | 2481 | 7        |          | 1        | 9980 | 310 |
| EΡ         | 1944         |      |     |     | 110       |      |                      |                                 |                |    |      |     |      |          |          |          |      |     |
|            | R:           |      |     |     |           |      | ES,                  |                                 |                | GB | 3,   | GR, | IE,  | ΙΤ,      | LI,      | LU,      | MC,  | NL, |
|            |              |      | SE, | AL, |           |      | MK,                  |                                 |                |    |      |     |      |          |          |          |      |     |
|            | 4864         |      |     |     | В         |      | 2002                 |                                 |                |    |      |     |      |          |          |          | 9981 |     |
|            | 9811830      |      |     | А   |           | 2000 | ZA 1998-11830        |                                 |                |    |      |     |      | 19981223 |          |          |      |     |
|            | 1998CA02210  |      |     | А   |           | 2005 | IN 1998-CA2210       |                                 |                |    |      |     |      | 19981223 |          |          |      |     |
|            | K 1021737    |      |     | A1  |           | 2008 | HK 2000-100695       |                                 |                |    |      |     |      | 0000     |          |          |      |     |
|            | 2000         |      | 04  |     | А         |      | 2000                 |                                 |                | ИО | 20   | 00- | 3304 |          |          | 2        | 0000 | 623 |
|            | 3262         |      |     |     | В1        |      | 2008                 |                                 |                |    | _    |     |      |          |          |          |      |     |
|            | 2000         |      | 15  |     | А         |      | 2001                 |                                 |                |    |      |     | 6315 |          |          |          | 0000 |     |
|            | 6559         |      |     |     | B1        |      | 2003                 |                                 |                |    |      |     | 6024 |          |          |          | 0000 |     |
| ВG         | 1046         | 31   |     |     | А         |      | 2001                 | 0228                            |                | ВG | 20   | 00- | 1046 | 31       |          | 2        | 0000 | 724 |
|            |              |      |     |     |           |      |                      |                                 |                |    |      |     |      |          |          |          |      |     |

| BG 64869               | В1 | 20060731 |    |             |    |          |
|------------------------|----|----------|----|-------------|----|----------|
| US 20030207871         | A1 | 20031106 | US | 2003-370171 |    | 20030219 |
| US 6838474             | В2 | 20050104 |    |             |    |          |
| US 20050148548         | A1 | 20050707 | US | 2004-958223 |    | 20041004 |
| JP 2005350478          | A  | 20051222 | JP | 2005-205007 |    | 20050713 |
| IN 2007KO00214         | A  | 20080822 | IN | 2007-KO214  |    | 20070209 |
| PRIORITY APPLN. INFO.: |    |          | US | 1997-998050 | Α2 | 19971224 |
|                        |    |          | WO | 1998-US4595 | W  | 19980309 |
|                        |    |          | EP | 1998-104292 | АЗ | 19980310 |
|                        |    |          | JΡ | 1998-58705  | АЗ | 19980310 |
|                        |    |          | IN | 1998-CA2210 | АЗ | 19981223 |
|                        |    |          | US | 2000-602494 | А3 | 20000623 |
|                        |    |          | US | 2003-370171 | А3 | 20030219 |

OTHER SOURCE(S): MARPAT 131:87805

AB ABNGxCHDCH(OR7)CH2ND'SO2E [A = H, alkyl(carbonyl), aryl(carbonyl), etc.; B = bond or (un)substituted NHCH2CO; D,D' = (cyclo)alk(en)yl, heterocyclyl, etc.; E = (cyclo)alkyl(oxy), heterocyclyl(oxy), etc.; G = H, R7, alkyl, etc.; R7 = acyl(oxymethyl); x = 0 or 1] were prepared Thus, analog I (R = H, R1 = NO2) was converted in 4 steps to I [R = P(O)(ONa)2, R1 = NH2](II). Data for bioavailability of II were given.

IT 229495-63-0P 229495-64-1P 229495-78-7P 229495-79-8P 229495-80-1P 229495-81-2P 229495-82-3P 229495-83-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amprenavir prodrugs as HIV protease inhibitors)

RN 229495-63-0 CAPLUS

CN Carbamic acid, [(1S,2R)-3-[[[4-[[(2S)-2-amino-1-oxo-3-(3-pyridinyl)propyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 229495-64-1 CAPLUS

CN Carbamic acid, [(1S,2R)-3-[[[4-[[(2S)-2-amino-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 229495-78-7 CAPLUS

CN Carbamic acid, [3-[[[4-[[5-amino-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxopentyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 229495-79-8 CAPLUS

CN Carbamic acid, [3-[[[4-[[6-amino-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxohexyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 229495-80-1 CAPLUS

CN Carbamic acid, [3-[[[4-[[5-[(aminoiminomethyl)amino]-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxopentyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

PAGE 2-A

RN

229495-81-2 CAPLUS CN Carbamic acid, [3-[[[4-[[2-(acetylamino)-5-amino-1oxopentyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

RN 229495-82-3 CAPLUS

CN Carbamic acid, [3-[[[4-[[2-(acetylamino)-6-amino-1-oxohexyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

PAGE 2-A

RN 229495-83-4 CAPLUS

CN Carbamic acid, [3-[[[4-[[2-(acetylamino)-5-[(aminoiminomethyl)amino]-1-oxopentyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

PAGE 2-A

IT 229496-00-8P 229496-01-9P 229496-02-0P 229496-03-1P 229496-04-2P 229496-05-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of amprenavir prodrugs as HIV protease inhibitors)

RN 229496-00-8 CAPLUS

CN Carbamic acid, [4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-[[4-[[[2-hydroxy-4-phenyl-3-[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2-methylpropyl)amino]sulfonyl]phenyl]amino]-5-oxopentyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 229496-01-9 CAPLUS

CN Carbamic acid, [5-[[(1,1-dimethylethoxy)carbonyl]amino]-6-[[4-[[[2-hydroxy-4-phenyl-3-[[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2-methylpropyl)amino]sulfonyl]phenyl]amino]-6-oxohexyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 229496-02-0 CAPLUS
CN 11-0xa-2,7,9-triazadodecanoic acid,
3-[[4-[[2-hydroxy-4-phenyl-3-[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2-methylpropyl)amino]sulfonyl]phenyl]amino]carbonyl]-8-imino-10-oxo-12-phenyl-7-[(phenylmethoxy)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 229496-03-1 CAPLUS

CN Carbamic acid, [4-(acetylamino)-5-[[4-[[[2-hydroxy-4-phenyl-3-[[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2methylpropyl)amino]sulfonyl]phenyl]amino]-5-oxopentyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 229496-04-2 CAPLUS

CN Carbamic acid, [5-(acetylamino)-6-[[4-[[[2-hydroxy-4-phenyl-3-[[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2methylpropyl)amino]sulfonyl]phenyl]amino]-6-oxohexyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 229496-05-3 CAPLUS
CN 2-0xa-4,6,11-triazatridecanoic acid,
10-[[[4-[[[2-hydroxy-4-phenyl-3-[[[(tetrahydro-3-furanyl)oxy]carbonyl]amino]butyl](2methylpropyl)aminolsulfonyllphenyllaminolcarbonyll-5-imino-3 12-dioxo-1-

methylpropyl)amino]sulfonyl]phenyl]amino]carbonyl]-5-imino-3,12-dioxo-1phenyl-, phenylmethyl ester (CA INDEX NAME)

PAGE 2-A

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:460393 CAPLUS Full-text

DOCUMENT NUMBER: 131:87804

TITLE: Preparation of 1,3-diacylamino-2-acyloxypropanes as

prodrugs of aspartyl protease inhibitors.

INVENTOR(S): Hale, Michael R.; Tung, Roger D.; Baker, Christopher

T.; Spaltenstein, Andrew; Furfine, Eric Steven; Kaldor, Istvan; Kazmierski, Wieslaw Mieczyslaw

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
|            |      |          |                 |          |
| WO 9933793 | A2   | 19990708 | WO 1998-US27424 | 19981223 |
| WO 9933793 | А3   | 19990910 |                 |          |

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             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
            MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                         CA 1998-2316218
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     AU 9920925
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     BR 9814484
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     EP 1042280
                         Α2
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             IE, SI, LT, LV, FI, RO
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                                            TR 2000-2402
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PRIORITY APPLN. INFO.:
                                            US 1997-68889P
                                                                P 19971224
                                            WO 1998-US27424
                                                               W 19981223
                                            US 2000-602984
                                                              A1 20000623
                                            US 2001-998617
                                                              B1 20011130
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OTHER SOURCE(S): MARPAT 131:87804

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Title compds. [I; R1 = CO, SO2, COCO, O2C, OSO2, NR2SO2, etc.; A = (benzo- or heterocyclo-fused) 5-7 membered heterocyclyl(alkyl); D, D1 = Q, (substituted) alkyl, alkenyl, cycloalkyl, cycloalkenyl; G = H, R7, alkyl; E = Ht, OHt, HtHt, OR3, NR2R3, (substituted) alkyl, alkenyl, carbocyclyl, etc.; GR7 = atoms to form a heterocyclic ring; Q = (substituted) (unsatd.) 3-7 membered carbocyclyl, 5-7 membered heterocyclyl; R2 = H, (Q-substituted) alkyl; R3 = H, (substituted) Ht, alkyl, alkenyl; R7 = (CH2O)nY(ZM)(:X)ZMn, (CH2O)nCO(R9)nM1; M = H, Li, Na, K, Mg, Ca, Ba, ammonio, alkyl, alkenyl, etc.; M1 = H,

(substituted) alkyl, alkenyl, etc.; R9 = C(R2)2, O, NR2; Y = P, S; X = O, S; Ht = cycloalkyl, cycloalkenyl, (substituted) aryl, 5-7 membered heterocyclyl; n = 0, 1; with provisos], were prepared Thus, title compound (II; R7 = H; R10 = NO2) was heated with H3PO3 and DCC in pyridine to give 96% II (R7 = OP(O)(OH)H; R10 = NO2). This was heated with TMSOOTMS and (TMS)2NH to give 88% II (R7 = OP(O)(OH)2; R10 = NO2). The latter was hydrogenated and salified to give II (R7 = OP(O)(ONa)2; R10 = NH2) (III). III in a methylcellulose/EtOH/H2O formulation administered orally to dogs showed a relative availability of 60.4% relative to its metabolite VS-478.

IT 229495-63-0P 229495-64-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 1,3-diacylamino-2-acyloxypropanes as prodrugs of aspartyl protease inhibitors)

RN 229495-63-0 CAPLUS

CN Carbamic acid, [(1S,2R)-3-[[[4-[[(2S)-2-amino-1-oxo-3-(3-pyridinyl)propyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 229495-64-1 CAPLUS

CN Carbamic acid, [(1S,2R)-3-[[[4-[[(2S)-2-amino-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]phenyl]sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:460392 CAPLUS <u>Full-text</u> DOCUMENT NUMBER: 131:87803

TITLE: Preparation of 1,3-diacylamino-2-acyloxypropanes as

prodrugs of aspartyl protease inhibitors.

INVENTOR(S): Hale, Michael R.; Tung, Roger D.; Baker, Christopher

T.; Spaltenstein, Andrew; Furfine, Eric Steven; Kaldor, Istvan; Kazmierski, Wieslaw Mieczyslaw

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|      | PAT                   | CENT :    | NO. |     |             | KIND DATE  |     |     |                 | APPLICATION NO. |                |      |      |     |          | DATE       |       |     |  |
|------|-----------------------|-----------|-----|-----|-------------|------------|-----|-----|-----------------|-----------------|----------------|------|------|-----|----------|------------|-------|-----|--|
|      | WO 9933792            |           |     |     | A2 19990708 |            |     |     | WO 1998-US27403 |                 |                |      |      |     | 19981223 |            |       |     |  |
|      | WO                    | 0 9933792 |     |     | A3 19990916 |            |     |     |                 |                 |                |      |      |     |          |            |       |     |  |
|      |                       | W:        | AL, | AM, | ΑT,         | ΑU,        | ΑZ, | BA, | BB,             | ВG,             | BR,            | BY,  | CA,  | CH, | CN,      | CU,        | CZ,   | DE, |  |
|      |                       |           | DK, | EE, | ES,         | FI,        | GB, | GD, | GE,             | GH,             | GM,            | HR,  | HU,  | ID, | IL,      | IN,        | IS,   | JP, |  |
|      |                       |           | ΚE, | KG, | KP,         | KR,        | KΖ, | LC, | LK,             | LR,             | LS,            | LT,  | LU,  | LV, | MD,      | MG,        | MK,   | MN, |  |
|      |                       |           | MW, | MX, | NO,         | NZ,        | PL, | PT, | RO,             | RU,             | SD,            | SE,  | SG,  | SI, | SK,      | SL,        | ТJ,   | TM, |  |
|      |                       |           | TR, | TT, | UA,         | UG,        | US, | UZ, | VN,             | YU,             | ZW             |      |      |     |          |            |       |     |  |
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|      |                       |           | FI, | FR, | GB,         | GR,        | ΙE, | IT, | LU,             | MC,             | NL,            | PT,  | SE,  | BF, | ВJ,      | CF,        | CG,   | CI, |  |
|      |                       |           | CM, | GΑ, | GN,         | GW,        | ML, | MR, | NE,             | SN,             | TD,            | ΤG   |      |     |          |            |       |     |  |
|      | AU 9920102            |           |     |     |             | A 19990719 |     |     | AU 1999-20102   |                 |                |      |      |     | 19981223 |            |       |     |  |
| PRIO | RIORITY APPLN. INFO.: |           |     |     |             |            |     |     |                 |                 | US 1997-68806P |      |      |     |          | P 19971224 |       |     |  |
|      |                       |           |     |     |             |            |     |     |                 |                 | WO 1           | 998- | US27 | 403 | 1        | W 1        | 9981. | 223 |  |

OTHER SOURCE(S): MARPAT 131:87803

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Z(CHD)pC(:G)(CXX1)mC(G1)N(D1)SO2E1 [Z = N(D)SO2E, NHA, NDA, NHE, NHCONDE, NH(Ht), Ht, ND(Ht); A = H, Ht, R1Ht, (substituted) R1Alk; Alk = alkyl, alkenyl; Ht = (substituted) cycloalkyl, cycloalkenyl, aryl, benzoheterocyclyl, heterocyclyl; D, D1 = R6, N(R2)2, (substituted) alkyl, alkenyl, cycloalkyl, etc.; E, E1 = Ht, OHt, HtHt, OR3, NR2R3, (substituted) alkyl, alkenyl; R1 = CO, SO2, COCO, O2C, OSO2, NR2CO, etc.; R2 = H, R6, R6-substituted alkyl; R3 = H, (substituted) Ht, alkyl, alkenyl; R6 = (substituted) aryl, carbocyclyl, heterocyclyl; G, G1 = H2, O; X, X1 = H, OH, NH2, SH, etc.; XX1 = O; m = 1-3; p = 0, 1], were prepared Thus, title compound (I; R7 = H; R10 = NO2) was heated with H3PO3 and DCC in pyridine to give 96% I (R7 = OP(O)(OH)H; R10 = NO2). This was heated with TMSOOTMS and (TMS)2NH to give 88% I (R7 = OP(O)(OH)2; R10 = NO2). The latter was hydrogenated and salified to give I (R7 = OP(O)(ONa)2; R10 = NH2) (II). II in a methylcellulose/EtOH/H2O formulation administered

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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

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Absolute stereochemistry.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STN INTERNATIONAL LOGOFF AT 10:02:26 ON 18 MAR 2009